# ACUTE TRICHOMONIASIS IN *Columba livia domestica*

# PIGEON CANKER




**N.PREMALATHA, A.SHANMUGA SUNDARAM, MANIMARAN.K AND D.THYAGARAJAN,**

VETERINARY UNIVERSITY TRAINING AND RESEARCH CENTRE, MELMARUVATHUR,

DIRECTORATE OF EXTENSION EDUCATION, TANUVAS, TAMILNADU - INDIA

# INTRODUCTION

Pigeon keeping is art and science of breeding domestic pigeon the most intelligent bird on planet and people have practiced dating back to 3000BC in almost every part of the world for **Food**, **Aesthetic satisfaction** and **Entertainment** .

**Pigeon fanciers hobbily rear pigeons for:**

**Flying / sporting / racing**

A Belgian racing pigeon called Bolt has been sold to a Chinese businessman for a world record price of 310,000 euros (£260,000: $400,000)

**Fancy / shows**

**Utility (commercial)** – Rapid growth and high fecundity

# Scientific classification

| | | |
|---|---|---|
| Kingdom | : | Animalia |
| Phylum | : | Chordata |
| Class | : | Aves |
| Order | : | Columbiformes |
| Family | : | Columbidae |
| Genus | : | Columba |
| Species | : | *C. livia* |
| Subspecies | : | *C. l. domestica* |
| Trinomial Name | : | ***Columba livia domestica*** |

# OBJECTIVES

A pigeon owner M.Gnanasundaram, Villarayanallur village, Kancheepuram District with flock strength of 150 birds reared in cages reported 17 % mortality of 45 days old squabs within a week period.

Hence farm visit was made and disease investigation was carried out in that pigeon farm



# Materials and Methods

- Physical exam
- Collection of Scrap from oral lesion
- Post mortem
- Culture and isolation
- ABST
- Histopathology
- Virus isolation
- Microscopic exam
- Water test



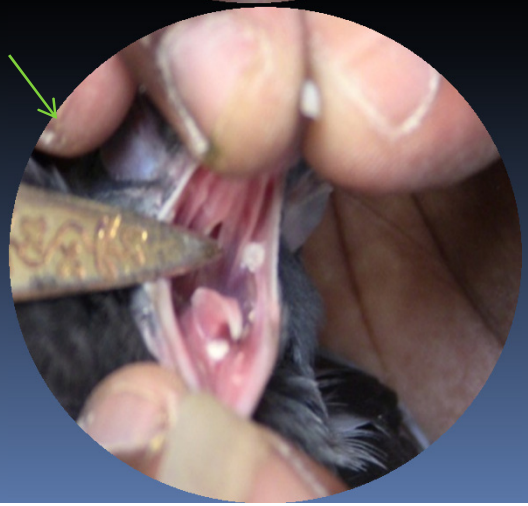


# Physical examination









**Unable to close their mouth because of lesions in the oral cavity**

**Lesions:**

**yellow raised areas like yellow buttons mostly distributed in Throat, Mouth & Beak commisures.**

**Difficulty in swallowing**

# Physical examination



Lesions located in sinuses of tissues around Eyes
The birds had inflammation of palbebrae and watery eyes





00014.mts

# Physical examination



Birds unwilling to fly

Off-feed and wait loss

Diarrhea

# Clinical Signs

- Squabs exhibited torticolis of neck
- Labored breathing
- Greenish white diarrhea
- Deprived of feeding with pigeon crop milk
- off-feed and weight loss



# POST MORTEM OF Birds

## Lung congestion predominant





# Materials collected
# lesion scrap and smear





# Materials collected

## Tracheal swab

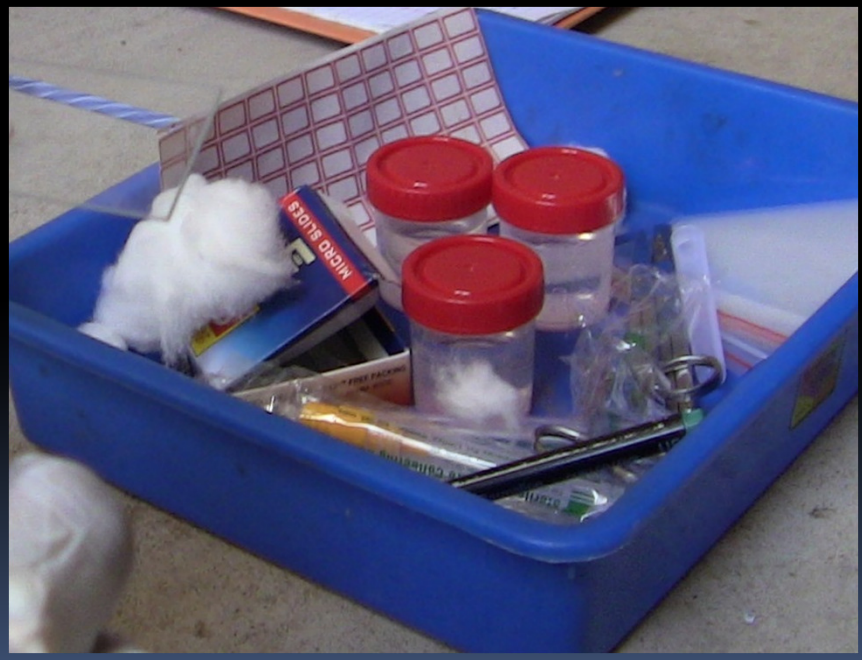


# Materials collected during PM

## SPECIMEN

- Heart, lung, liver, trachea and intestine in 50% GS , NS and 10% formalin were collected
- Sent to the laboratory for
  - culture and isolation,
  - microscopic examination,
  - ABST and
  - histopathology

## CUL



# Water sample

## TWAD KIT

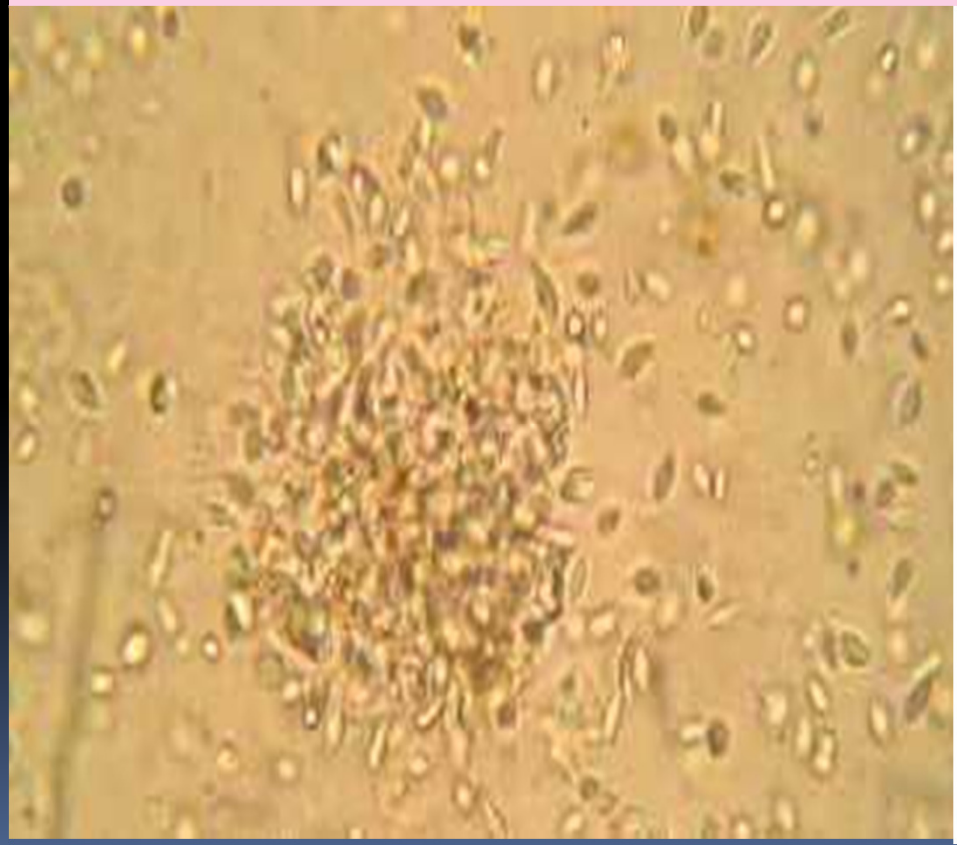


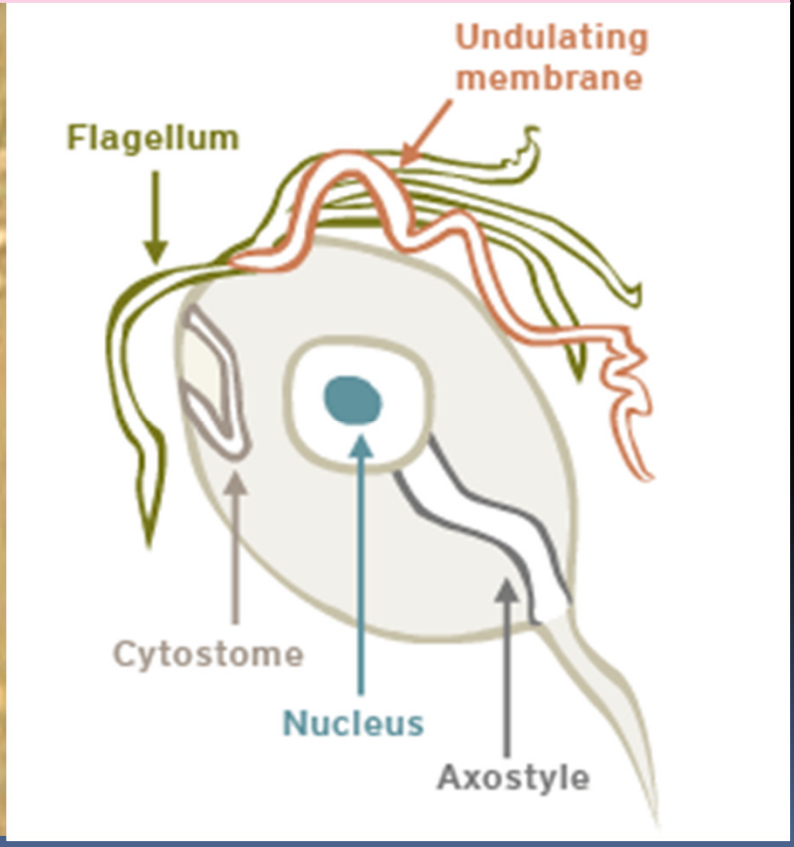

## Sample tested



# Results - Microscopic examination

## Trichomonads Species





# Results – Tracheal swab culture

## Pesudomonas Species

- Gram Negative
- Rods, single cell
- Non-acid fast
- Greenish soluble pigment, TSA





# Results – virus isolation

No HA virus could be detected



# Results - ABST

Sensitive for

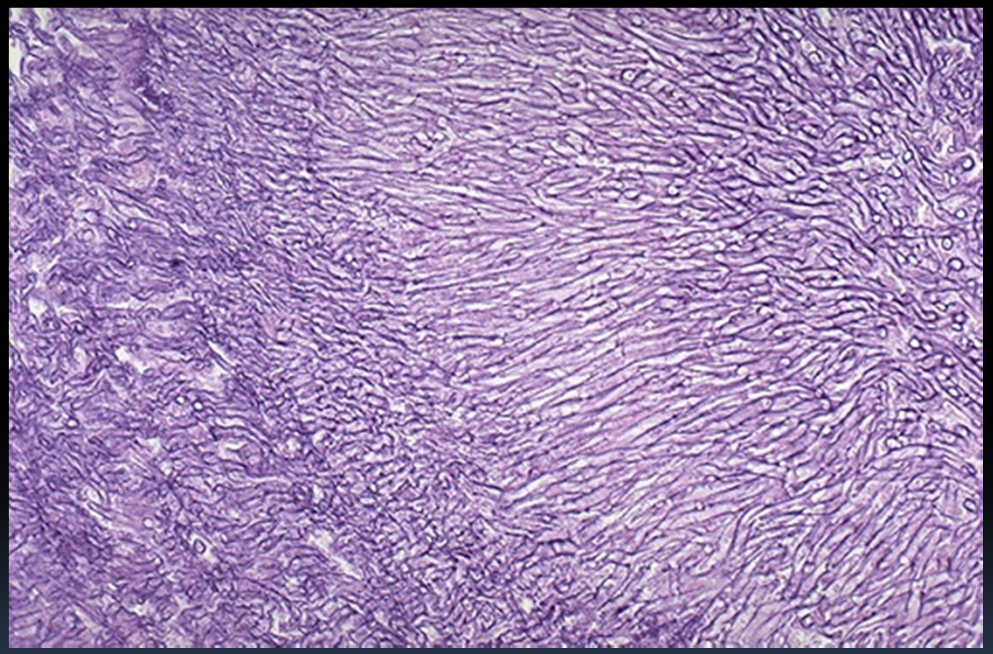
Enrofloxacin
Gentamicin
Amoxicillin
Norfloxacin



# Results – Histopathology of lung

## Aspergillus sp.

Multifocal severe granulomatous pneumonia with fungal hyhae



Branching, septate hyphae are close- packed here and radiating outward in this aspergillo

# Results – Water testing Portable

| Content | Sample | Permissible limit |
|---|---|---|
| Appearance | colorless | colorless |
| Odour | None | None |
| Turbidity | No | None |
| pH | 7.5 | 6.5 – 9.2 |
| Alkality | 250 mg/L | 600 mg/L |
| Hardness | 240 mg/L | 600 mg/l |
| Chloride | 200 mg/L | 1000 mg/L |
| Fluoride | 1 mg/L | 1.5 mg/L |
| Iron | 0.3 mg/L | 0.3 mg/L |
| Ammonia | 0.5 mg/L | 0.5 mg/L |
| Nitrate | 0.5 mg/L | 45 mg/L |
| Residual Chloride | 3 | 0.2 mg/L |
| TDS | 828 mg/L | 2000 mg/L |



# Conclusion

## Acute Trichomoniasis concurrent with Aspergillus sp.

- Clinical signs
- Gross lesions
- Cultural examination
- Microscopic examination
- Histopathology



# Treatment

- **Antibiotic one course for 5 days**
  - 10 % Enrofloxacin oral solution - PO
  - Metrinadazole @60mg/Kg Body weight - PO
  - Ketoconazole tab @30mg/Kg body weight - PO



# Control Measures suggested

- Isolation of affected birds
- Disinfection of the farm and cage premises
- Elimination of stagnant water sources
- Depopulation of birds at regular intervals

# 2nd Indo-Global Summit and Expo on Veterinary Conference

